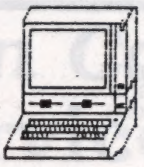
NOVAPPLE Newsletter

VOLUME VII - NUMBER 3 NORTHERN VIRGINIA APPLE USERS GROUP APRIL 1987

APPLEWRITER TO STAR GEMINI NX-10 VIA THE LASER 128



By Betsy Robinson

For whomever it might help, the saga of how I got my Star Gemini/Super Serial card work-alike to do old printer tricks continues, this time with Applewriter IIe. (You realize that Chuck Edmiston quietly got his printer to do these things, in order to get out his first newsletter!)

The basic fact about talking to any "smart" printer interface card (like Pkaso or Grappler) from Applewriter IIe is that you have to bracket any control character you want to send with CTRL-V, 'fore and aft, to get Applewriter to ignore it and just pass it on.

With a vanilla-flavored interface, like the Laser 128's equivalent of the Apple Super Serial card, what becomes uppermost is how to send an escape sequence ... and knowing that you bracket the escape character in CTRL-V's, the same way.

This will be in italics. The code used is <ESC> "4", so I keyed in CTRL-V [CTRL-V 4. The full justification is thrown off two character's worth because the <ESC> 4 are counted as two characters but are not printed. Putting them in the linespace between paragraphs would have prevented that.

CTRL-O turns on compressed print. My printer manual tells me that the teletype <DC2) is supposed to turn off compressed mode, and is a CTRL-R. Well, it worked, and this is no longer compressed.

Margin control is an Applewriter function, not an instruction to the printer. I have been "cheating," and have gone back through my text file and put in changes to margin settings, to accommodate the changes in width of characters.

(GOTO PAGE 4)

EXPLORING THE PRODOS "VOLUME"

by TODA HIRO-MATSU

There are a lot of useful tricks under Dos 3.3 that many of us use often - undeleting a file, recovering lost data, fixing blown disks - that evolved out of our understanding of just how the data is organized and saved on a disk. But most of us can't do the same thing with ProDos because we don't know the disk structure, and the information seems a little hard to come by. Here it is.

ProDos, you'll recall, speaks of VOLUMES, instead of disks. A volume is all the same to ProDos, whether it is on 5" floppy disk, 8" disk, hard drive, tape drive, or RamDisk. All volumes are organized more or less the same way. On the usual floppy disk, the format into tracks and sectors is identical with Dos 3.3: 35 tracks of 16 sectors, with the same address and data headers and footers. Here, the similarity ends. ProDos does not deal with tracks and sectors, but with LOGICAL BLOCKS, leaving it up to the driver of the particular device to translate that into the proper track/sector. So, only in the immediate disk I/O routine, will you ever be involved with them. Everywhere else in ProDos, you'll be working with logical blocks, so this is the first thing to understand.

Blocks are numbered consecutively, starting from 0 and increasing to as many as the device will hold. Logical blocks 0 and 1 correspond to Track 0, Sectors 0 and 1, respectively. (If you're familiar with the Autostart Rom, you'll see why this must be so.) These blocks contain a loader program that enables ProDos to be booted from the volume.

(GOTO PAGE 12)

THE CORRECT NOVAPPLE BBS NUMBER!!!!

In the last issue, Bill Sanderson phone number was mistakenly displaced as the BBS Number. The correct phone number for you to call the bulletin board is :

NOVAPPLE BBS: 1-703-352-5842

Sorry about the confusion.

--NoVA

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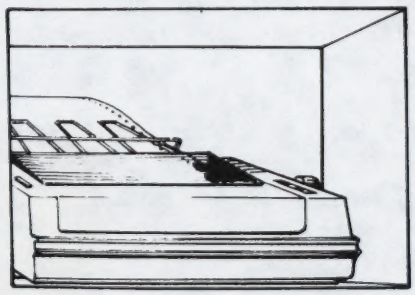

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Clinton Computer, one of the Metro area's largest retail computer dealers, now has four stores -- in Clinton and Laurel, MD, and in Vienna and Alexandria, VA. We are authorized dealers for Apple™ microcomputers at all four locations.

Clinton Computer's New Store in Tyson's Corner, VA

In addition, our Clinton and Alexandria stores are authorized IBM™ Personal Computer dealerships. We also sell printers, monitors, software, supplies, and service for the products we sell.

Clinton Computer was founded in 1978 by co-owners Art Lundquist and Chuck Perilli. It began as a two-man consulting firm on the fourth floor of an office building and grew into a $20-million-dollar retail business with over 90 employees.

The first retail store was in Clinton, MD, behind a shoe store. Then the company moved to a shopping center fronting on Branch Avenue in Clinton in 1982. In 1984, Clinton Computer expanded by opening a retail Business Center in Old Town Alexandria.

The Laurel, MD, store opened in 1986 when we acquired the assets of the Comm Center. The newest store opened November 24 in the highly competitive Tyson's Corner area at 8032 Leesburg Pike (Rt. 7 West). This is an "Apple Only" store, carrying Apple products and third party products that complement the Apple line.

The company also operates a huge 3600-square-foot service and repair facility in Clinton, with satellite repair shops at the Laurel, Vienna and Alexandria Stores.

Clinton Computer Opens "Apple Only" Store in Vienna,VA

Clinton Computer's newest retail store is an "Apple Only" facility in the highly competitive Tyson's Corner area of Vienna, VA. Company President Art Lundquist wants to focus on a single vendor of a market segment.

Cheryl Jarratt has been promoted to be the Tyson's Branch Manager. She had been Clinton Computer's Director of Marketing.

"I am very optimistic about the success of the new branch. We are one of the most profitable computer dealers due to our commitment to customer satisfaction," said Cheryl.

DISCOUNT POLICY FOR NOVAPPLE MEMBERS

CLINTON COMPUTER offers NOVAPPLE members a 25% DISCOUNT OFF THE LIST PRICE on all non-allocated Apple brand peripherals and software and on AppleCare (no CPUs). For upgrades, the 25% discount applies only to the parts; the normal labor rate will be charged. Discount is available to persons who have been NOVAPPLE members for at least 3 months. Discount applies to cash and certified check purchases and cannot be applied retroactively. Add 1% for credit card and personal check purchases. If the product is not in stock, we can take your prepaid order. Members need to present their cards up-front. No phone or mail orders, please. Discount cannot be used in combination with other promotions. Products on allocation from Apple are excluded from this offer. Clinton Computer reserves the right to change this policy at any time.

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THE NOVAPPLE HOTLINE IS A LIST OF VOLUNTEERS WHO HAVE AGREED TO ANSWER YOUR QUESTIONS BY PHONE. DO NOT CALL AFTER 10PM, PLEASE. PASS UPDATES TO ERNIE PHILIPP IN WRITING OR CALL (H) 379-7198. Hotline 04/87

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	PANKIN, MARK	524-0937
	PHILIPP, ERNIE	379-7198
APPLEWORKS	KRIEGER,BILL	821-1496
	CONCAUGH ,INA	256-3062
	BISEN,CARL	354-4837
	CHEW, RICH	573-0947
	THORNBURG, JIM	750-1367
APPLEWRITER][	ANTON, BILL	385-1225
	HARVEY, DAVE	578-4621
ASCII EXPRESS	HARVEY, DAVE	578-4621
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COMMUNICATIONS,Modems	HARVEY, DAVE	578-4621
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DISK BACKUP	ANTON, BILL	385-1225
	TRAVIS, SCOTT	455-9361
	UNGERMAN, MIKE	455-3441
EPSON PRINTER	BISEN,CARL	354-4837
	TRAVIS,SCOTT	455-9361
FORMAT II	HARVEY,DAVE	578-4621
FORTH	HOLDGREIWE, DAN	354-3561
FORTRAN	ANTON, BILL	385-1225
	KRIEGER, BILL	821-1496
INVESTMENT PGMS/STOCKS	PANKIN, MARK	524-0937
GAMES	LAUFER, GABOR	765-4539
LOCKSMITH	ANTON, BILL	385-1225
MACINTOSH	PANKIN, MARK	524-0937
	LOVE, JOHN	569-2294
MATH/STAT	PANKIN, MARK	524-0937
MULTIPLAN	PHILIPP, ERNIE	379-7198
	BALDWIN,MILES	938-8457
	LUCAS, TOM	321-9593
OPS RES/MGT SCI	PANKIN, MARK	524-0937
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PROWRITER PRINTER	KRIEGER, BILL	821-1496
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Additional areas needinng assistance:

Printers: prowriter, okidata, gemini, centronics.
Investments:stocks,bonds, commodities, printer interfaces, real estate
SOURCE
hard disks, logo
128K/memory cards,etc...

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You may leave questions on the Bulletin Board with your name or NOVAPPLE ## as an alternative.

APPLEWRITER ‹From Page 1›

Another Applewriter function is underlining . It never worked "as advertised" with the PKASO card and C-Itoh. It took 3 characters before and 3 after, which threw off margin control by six characters, and the margin was underlined if wrap occurred during an underlined segment. However, this is underlined "as advertised," with bracketing backslashes , and the left margin does not get underlined. Applewriter also keeps the right margin even, probably by not counting the backslash character.

There are a few ways to handle expanded print (according to the manual), but the one you can turn on and have stay on until you turn it off is this:

‹ESC› "W" 1 - Sets the printer to expanded print until cancelled.

‹ESC› 'W' 0 - Cancels expanded print.

expanded, right?
I changed margin
settings, in
anticipation.
...and went
to centering within the column...
and not expanded, right?

There are literally dozens of other codes and combinations available, which is probably true of most kinds of printer "out there." (I turned off the italics with ‹ESC›5. You saw that italics can come in various numbers of characters per inch.) I'm appreciating this printer/interface combination for the italics and the better underlining behavior, but I miss the screen dump capabilities of the PKASO interface card.

--NoVA

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(On the Bulletin Board, send Newsletters articles to Chuck Edmiston.)

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Diskette Orders: NOVAPPLE, 514 North Flordia Street, Arlington, VA., 22203
Newsletter Address: NOVAPPLE, 6504 Bowie Drive, Springfield, VA., 22150

THE MACINTOSH SE

From John Wesner

The Macintosh SE adds expansions and flexibility to the power of the Macintosh Plus, making it Apple's mainstream business computer.

Processing speed is improved 15 to 20 percent over previous models allowing faster recalculation of spreadsheets and faster document processing. SCSI performance is up to two times faster allowing faster launches and quits, data base searches, and document retrieval.

The Macintosh SE comes standard with either two 800K internal drives or one 800K internal drive and one internal 20MB SCSI hard disk.

The Macintosh SE incorporates the features of the Macintosh Plus including:
-- The same compact design
-- A 68000 microprocessor
-- One megabyte of memory (expandable to four megabytes)
-- A connection for SCSI peripherals

Other features of the Macintosh SE include:
-- The Macintosh SE-Bus Expansion Slot. Accessory Access allows external products to be directly connected to an internal card.

Users can add:
-- Accelerator cards
-- External monitor adapters
-- MS-DOS co-processor cards
-- Networking and communication cards
-- A 5.25-inch MS-DOS disk drive controller card

-- 7 built-in ports including:
-- One SCSI port
-- One drive port
-- Two RS422 serial ports
-- One sound port
-- Two Apple Desktop Bus ports
-- One megabyte of RAM, expandable up to four megabytes.

-- 256K ROM, which includes support for:
-- Internal and external SCSI connectors
-- Internal drives
-- One expansion slot
-- Apple Hard Disk 20SC
-- The Hierarchical File System
-- QuickDraw
-- AppleTalk
-- The Apple Desktop Bus

A keyboard is not includes with either configuration of the Macintosh SE. However, two keyboards --the Apple Keyboard and Apple Extended Keyboard-- are available.

--NoVA83

APPLEWORLD '87

by Dave Harvey

Back in late January, 1987, I received an invitation from Apple Computer Company to attend the AppleWorld Conference for 1987 on March 2nd and 3rd in Los Angeles, California. NOVAPPLE was selected on one of 150 Apple user groups throughout the user group community. In addition to the invitation to attend the AppleWorld events, I was also asked to attend the first Apple User Group "University", which would occur the day after the formal AppleWorld. In order to make it as easy as possible, Apple had arranged to offer discounts on air fare and hotel rooms for AppleWorld. So I decided to go ahead and make my hotel and plane reservations.

I arrived at the LA airport Saturday night expecting to have to catch a taxi to the hotel because I was arriving a day early. But when I got to the baggage pickup area, I found an Apple person waiting for me and telling me that I could catch a shuttle outside which would take me to my hotel, which was the downtown Hilton. Because of the large number of people expected to attend the conference, attendees were being put in a number of hotels. Educational and user group attendees were at the Hilton, others would be staying at the Biltmore, Bonaventure and Sheraton Grande.

The next morning I decided to explore neighborhood around the hotel. When I went outside I found traffic blocked off on the street outside. This I found out was because the annual Los Angeles Marathon was being held that day, with thousands of participants. Soon there were many, many people running by, walking by and in some cases, wheeling by in wheelchairs. It seemed like forever before the last person passed by, but eventually it was all over and I could cross the street.

Later in the day, I checked in at the AppleWorld reservation desk and got a large stack of material for the convention along with a Apple //c case to hold it all in. I also received a large format book commemorating the ten anniversary of Apple Computer called "So Far - The First Ten Years of a Vision". This book has been put in the NOVAPPLE library. I highly recommend, if you have the time, to read it.

That night there was a reception in the Hilton for all the user group representatives hosted by the Los Angeles Macintosh Group and friends. That started at 8:30 that evening. But before that time, some of us were hungry and decided to see if we could find a restaurant nearby. After much discussion we wound up at the Bonaventure Hotel and ate at the INAGIKU, a very nice Japanese restaurant. An outstanding restaurant that was enjoyed by everyone. When we got back to the hotel, the reception was in full swing. There was a cash bar and lots of deserts and cheese for everyone to eat and during the reception a magician entertained us. Toward the end of the reception, Ellen Leanse, Program Manager and Chief Evangelist of the Apple User Group Connection, welcomed all of us to AppleWorld '87. She gave us some details on what would be happening the next few days and expressed the hope that everyone would enjoy and benefit from the activities scheduled. One observation I quickly made was that over the next few days, I would not have to spend very much money; Apple was picking up the tab for all meals during the conference. Apple was determined to make it easy as was practicable on all attendees as far as expenses went.

FIRST DAY-- Monday, March 2

The conference started with breakfast at 7:00 am. Waiting for us there was a continental breakfast, with all sorts of fruit juices, french pastries, coffee and tea. Everyone was very excited that morning because in a very short time all of us would be getting on busses that would take us to the Universal City Studios where the Conference Opening Celebration would be taking place. This studio is the largest in the world, sprawling over 420 acres. The celebration was being held in the Amphitheater there, a very large building. The bus ride later deposited us at the entrance to the amphitheater, where there were literally thousands of people waiting to get inside. We had arrived a little bit before the scheduled 9:30 am opening but in no time we were inside. What greeted us was a very large theatre seating about 4 to 5 thousand. The 3000 attendees still left many empty seats which provided for many others such as the press and analysts who were also invited to the opening. I was quite impressed by all the TV cameras and many other audio/visual equipment that was visible. We found out later that the whole affair was being sent over the Compuserve Communications network as well as the video being sent via satellite to 26 cities throughout the United States. Up on the stage there were 3 large screens with a podium off to one side. The first speaker was Mr Del Yocam, Executive Vice President and Chief Operating Officer. He traced the history of the development of the Apple line from the original Apple I to the present. Following him, Mr. Jean-Louis Gassie, Vice President, Product Development. He presented the new Apple products, the Macintosh SE and the Macintosh II. Both computers were put through their paces with demonstrations of exactly how advanced and capable the new graphics and sound were on these new computer. In the next few weeks I'm sure you will be learning a lot about these new computers. Following the unveiling of the new computers, the final speaker was introduced, Mr John Scully, Chairman, President and Chief Executive Officer of Apple. He was an eloquent

(GOTO PAGE 7)

speaker who spoke of a revolution that began ten years ago and changed the world. He spoke of a dream. A dream to build great personal computers..a dream to change the world by touching the lives and minds of millions of people. He said that Apple wants to be the catalyst for change by improving the way people think, work, organize, communicate and learn. He went on to say that we need a framework against which to judge the choices and appreciate the opportunities ahead. He said that in the '70's data processing was the central purpose of computers. Today, everyone is redefining their product for the distributed processing model, as opposed to the traditional data processing model. He predicted that the 1990's will shift from distributed processing to document processing and as document processing becomes the standard we will see it lead to intelligent documents. His parting thought was "Our revolutionary idea isn't a silicon chip or a clever twist on technology. It's a vision of how computers can help people accomplish anything they set their minds to do. Simply put , it's 'THE POWER TO BE YOUR BEST'.(tm) And when you think how much that vision has changed our world in the past decade, just imagine how far it can take us in the next." (A transcript of Mr. Sculley's talk will be available in the NOVAPPLE library.) After that there was fireworks on stage, first as color simulations using the Macintosh II and the 3 large screens on stage. There followed real fireworks on stage to bring to a close a spectacular performance again at AppleWorld. As we were leaving the Amphitheater, everyone was saying, how are they going to top that next year. I guess we will have to just wait and see.

The next item on our busy schedule that day was lunch back at the hotel. After lunch we all participated in the next session, "Building the Connection-- Apple User Groups: Where we are and where we are going". This part involved Ellen Leanse again and Bruce Mowery, Manager, Consumer Marketing and Advertising and Promotion. The main theme of this session was communications between Apple and the User Groups. Discussed were the many ways that Apple is trying to establish communications with User Groups.

The next session was the "User Group to User Group Connection". This session was chaired by Andy Reese, President of The Apple Corps of Dallas. This was a very enthusiastic session with lots of people having some definite opinions on the best way to communicate among ourselves. There was some discussion about the International Apple Corps and what it had done or tried to do in the past. The IAC is undergoing a re-organization and is in a state of flux. The main issues were how to communicate between the different user groups to past on a variety of information, such as public domain programs, newsletter articles, etc. After much discussion, it was decided that a committee should be formed to discuss the issues and make recommendations to all the user groups. A number of representatives volunteered to serve on this committee. So I expect we be hearing more about this subject in the future.

The next session involved Apple Dealers. This panel discussion involved Cathy Hollihan, User Group Evangelist; Mark Cator, Hardware Specialist and five panelists--dealer representatives, one representing a local computer store, Clinton Computers (Mr. Art Lingquist). This was a very interesting session and concentrated on some of the success stories the dealers and user group representatives had to tell. Some of the ideas expressed were to have dealers have technical sessions with user groups, have dealers sponsor training sessions with the user groups involved, send copies of user group newsletters to specific persons within the dealer's organization, have user group representatives talk to dealers at one of the dealer's meeting, have the dealer talk at a user group meeting. One question asked of the dealers was what can dealers get from user groups? Some of the answers were: by reading reviews of software and hardware in the user group's newsletter, the dealer has a better idea of what to stock; dealer is kept up to date on software and hardware bugs and other problems encountered by members.

The last session of day one was a talk by Alan Kay, one of the Apple Fellows. The subject of his talk was "Emerging Trends". Mr. Kay is an outstanding speaker as you probably know if you have heard him speak. Mr. Kay shared his vision on future terminologies. The Apple Computer Company is looking 5 to 10 years in the future, trying to predict what will be happening then. Last year, Apple doubled their research dollars from 4 % of their base in previous years, to 8 % in 1986. Apple wants to emulate the Sony Corporation who takes a market and develops and creates new products for it. Mr. Kay shared with us some of the his ideas of what the future would be like. A lot of what he had to say is on the video tape that is in the NOVAPPLE library where one of his previous talk is recorded. The tape is available for checkout. Some of the subjects he talked about is in the book "Megatrends" by Naisbett which Mr. Kay recommended we read. Everyone was sorry when the session had to finally come to a close.

That night all the User Group representatives were invited to a dinner that featured "The WOZ", Steve Wozniak with Ellen Leanse as Mistress of Ceremonies. The entertainment for the evening was the Wheel of Fortune game using a Macintosh to simulate the wheel and the puzzle phrases. The WOZ came up with Apple trivia questions to put to the contestants, who were user group representatives pick at random from the audience.

<GOTO PAGE 8>

Everyone got a real big kick out of everything that happened that night and for me was one of the most outstanding evenings of the conference.

SECOND DAY-- Tuesday, March 3

The second day was when we would get to see all the hardware and software that everyone had been talking about for the last day or so by going to the Apple Expo. We would have all morning to look over all the Apple lines as well as the new introductions of the Macintosh. We all arrived at the Expo at a little before 8:00 am. While we waited for the doors to open, we looked over the "Apple Museum" that was on display. This was a historical display depicting 10 years of achievement for Apple Computer. An outstanding chronological review of where Apple had been in the last 10 years. The Expo was divided into two parts: Product Exhibits and Market Environments. Each area was on a separate floor of the Bonaventure Hotel. In the Product Exhibit area we could meet representatives of universities and strategic third-party companies as they demonstrated more than 150 hardware and software products using Apple systems. This area was broken into a number of areas: Higher Education Curriculum, Apple Technology, Desktop Engineering, Desktop Publishing, K-12 Education Curriculum, Consumer, Desktop Communications, Government and Productivity and Management. Macintosh system were more in evidence than Apple II systems, which was it probably should have been since new Macintoshs were the star of the show. After a few hours there, I went down to the Market Environments area. The machines in this area were displayed from a different perspective-- how the products would look like and perform in the actual physical environment and were showcased in the environments in which they're used and were divided into 4 areas: Consumer, Business and international, K-12 Education and Higher Education. Each area was like walking onto a movie or stage set, e.g. doctor's office or children's room. Very well done with attendees able to view and interact with the programs and the people demonstrating them. I'm sure everyone would have liked to have spent more time there, but there more more equally important things to do that day.

Next on our agenda for the second day was lunch again at the Hilton Hotel. We had an outstanding guest speaker at lunch-- Ms Patricia Aburdene who is coauthor with John Naisbitt of "Re-inventing the Corporation: Transforming Your Job And Your Company For The New Information Society" Patricia Aburdene is a leading authority on the future of the American corporation. Ms. Aburdene opened her talk by saying to the user group representatives present that as leaders of Apple User Groups you are pioneers of the corporate management style of leadership by commitment not by authority. She planned to examine the vision of user groups and what trends that we can expect in the future. What's happening in user groups is analog of what's happening in society. Successful companies and companies that want to continue to be successful are reorganizing to make more money and to be more efficient so they can be run by the corporation vision. She had some examples of companies that changed their companies so they could be successful. One of these was SAS the Scandianavian airline company. The president of that company turned the company around so that a $18 million loss per year was turned into a $18 million earning. He turned the organization chart upside down where he now has the employees that serve the customers running the company and the top managers are working for them. He has written a new book about what he did called "Moments of Truth". The new leaders of tomorrow is a little bit of a dictator-- have all his employees accept the vision of his company and for those who do not see the vision, educate them. Another example she gave was the company that makes the fabric "Gore-Tex", W.L. Gore. This company has 38 plants, 5,000 people and employees have no titles and no bosses-- everyone is an associate - commitment not authority. She gave 3 other examples of companies that were doing the same thing. In one company, they decided to do business only with people that are pleasant. They came to this decision after discovering that most of their time was being taken up by 5 % of their customers who were not pleasant. She sees five trends that are occurring in non-profit organizations: 1. Organizations that provide most personal growth will be the most successful. Employees are growing personally and professionally. Retraining of managers is occurring. 2. Future companies will be competing for human resources and careful management of those resources will be required. We are now moving into the baby bust era. By 1990 there will be 60 million fewer teenagers than in 1980. Companies will be foolish to overlook senor citizens as a valuable resource. 3. The new worker is a woman. Two-thirds of the millions of new jobs in 1986 were filled by women. The white male is now the minority in the workforce. The manager is now a teacher and innovator not a director - Management by negotiation. 4. The old definition of compensation is now out of style. What is new is stock options, incentive awards, offers of equity. In Vasallia, CA, the city government does not consider it a sin to make a profit. City employees are eligible for $1000 bonuses; bosses unlimited bonuses. Where money is saved on a suggestion of a city employee, 15 % goes to the employee. If the employee is a manager, he gets 30% of the money saved. 5. The last trend is "High Tech- High Touch". Applying a human counterbalance. There is a human potential movement today. In the age of form letters, there is a revival

<GOTO PAGE 9>

of hand written notes. When there was an introduction of robots into factories, it was counterbalanced by instituting of "quality circles". One suggestion she had for user groups was to have more social events. There might be a false perception of user groups by outside people that there is no social aspects connected with the group.

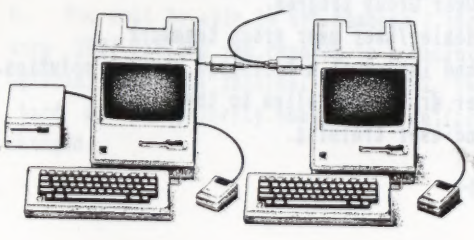
Next on the user group agenda was a talk by Mr. Jean-Louis Gassee. He presented an overview of the strategic direction of the Apple II and Macintosh product families. Following that, there was a panel discussion on the Apple II design and its implications. The moderator for this panel discussion was Tom Vinden, Consumer Product Manager. Members of the panel were Rob Moore- hardware engineering manager for the Apple IIGS, Harvey Leaman- Systems Software for the Apple II line, Neal Hanson- Chief Evangelist for third party products, Mike Smith- Head, Product manager for the Apple II and Rick Williams, designer of the ROM's for the Apple II family. Some of the items discussed was the ROM bug in the UniDisk 3.5 " drive. Most of the panel had not heard of this bug. They all agreed that the bug had now been fixed but could not give details on how the backfit was being handled. They promised that if I contacted them later that they would give me the info. Also discussed was the ADPA, Apple Developers and Programmers Association. This group now has 10,000 members and at first was slow in filling requests for documentation because the rise in membership applications exceeded all of their expectations. This association will be the main distribution for Apple of new hardware and software documentation. There was also some discussion about Apple system software for the Apple II series of computers. The panel stated that Apple wants all user groups to have this software and in fact encourages all user groups to make sure that all members have the current versions of system software such as DOS 3.3 and ProDOS. Someone in the audience asked when Print Manager was coming out and what was going to be the policy on it. I assumed this was some new software that Apple is developing. The panel stated that it would be coming out soon and developers could use the software in their programs with a license from Apple. User groups could use it without a license. As a final topic for discussion, the panel asked the audience what would they like to see Apple develop in the way of new products. There were two suggestions. One, Apple should develop a laptop computer. As a minimum it should have more than just the 8 lines that's now on the Radio Shack Model 100. It should have at least one disk drive built in and the display should be readable. The other suggestion, which would be a lot easier to implement, is to put a 3.5" drive in the Apple IIC. A external 5 1/4" drive could be a option if people wanted it for those people that still had software or data on the larger floppies.

To close out the official conference, Mr. John Sculley made some brief remarks to the User Group representatives and then fielded questions or comments from the audience. Typical comments were that everyone was pleased with all the emphasis that Apple is giving to user groups and how well the program has been run so far by Ellen Leanse and her staff; tradeins should be considered for Apple //+ users that are now buying the GS that in turn could be turned over to educational institutions; a suggestion to have a dealer certification program that was based on relationship or support he had with his local user group(s). Mr. Sculley said that Apple would take all of them under consideration and for the most part decisions on what suggestions to support or take action on usually boiled down to which suggestions could be implemented that would have the best cost/benefit ratio to the users.

Although the AppleWorld '87 officially closed on Tuesday, March 3rd, the user group representatives were asked to stay over an extra day and attend the Apple User Group "University". This was a day-long review of interests and issues pertaining to the management of Apple User Groups and their ongoing interaction with Apple. This was also designed to be a "User Group to User Group" session. Due to my plane schedule, I was not able to stay the whole day at the University, but I did get to hear Ellen Leanse give a review of the User Group Connection where she discussed the current status and the near-term plans for the Apple User Group Connection.

Ellen welcomed us and said that Apple is calling this a "University" because there will be sessions or classes on user groups and that Apple want to learn more about user groups and find out what there problems and concerns are. Ellen introduced her boss, Mr. Bill Campbell, the Vice President of Sales and Marketing. He stressed commitment by performance was the byword at Apple. Ellen's group is one way. The User Group Connection was put into the mainstream at Apple and they hope to provide an environment to learn from each other. As a result of the User Group Connection, user groups are realizing better relationships with dealers. The Apple IIgs Rollout was very successful, with over 300 user groups across the country participating. Mr. Campbell said that "in the past we've been arrogant but we've been humbled and brought to our knees; that won't happen again".

Ellen then covered some of the programs that are in the



<GOTO PAGE 10>

APPLEWORLD'87 <From Page 9>

works and be announced to all user groups shortly. One new program is a User Group System Software Agreement. They are now putting the finishing touches on this program and will be announced to all the user groups in March. This program will allow user groups to reproduce and distribute Apple System Software to their members. This will be a physical distribution to the user groups and will include all updates that come out. The cost to the user group will be $75 per system per group per year. In other words, for Apple II system software, it will cost $75/year and for the Macintosh it will cost $75/year.

Next, Cathy Hoolihan reviewed some of the new things happening with communications. The QUICK CONNECT newsletter format has been changed because of comments from user groups. An evaluation form was distributed so that we could comment on how the user groups liked the new format and what else could they do to improve it. The next item covered was AppleLink and problems users were having with junk mail and many other messages that users have to plow thru to find items that are of very special interest to them. Cathy announced that to help with this overwhelming problem, a AppleLink User Group Bulletin Board will be set up. This area of AppleLink will be just for use by user group representatives and will be divided into the following areas:

-- Welcome
-- Product Information Exchange
-- Meeting support
-- User Group to User Group News
-- General News

Cathy said that this is a fantastic breakthru and the bulletin board will be implemented in just a few days from now. We are looking forward to this improvement in the AppleLink network.

The next area covered was the User Group Advisory Council. This is a council composed of 16 user groups representatives from the Apple user group community and met in January of this year. Out of this meeting there came two sets of recommendations to Apple.

As user group leaders they made the following recommendations:

1. Continue User Group program.
2. Engender dealer/user user group teamwork.
3. Identify and implement a technical support solution.
4 Extend user group evangelism to the field.
5. Address end-user training.

There followed a discussion on these recommendations and what Apple was considering implementing to address these recommendations. Some of the ideas presented was possibly using AppleLink to answer technical support questions; developing management aids for user group leaders.

As tuned in customers they made the following recommendations:

1. Improve user group/dealer relations.
2. Extend technical support reach through user groups.
3. Facilitate input from end users.
4. Investigate "customer evangelism".
5. Support Apple-branded software.

The general direction that Apple is going as far as the User Group Connection is concerned is:

-- continue with the existing program
-- expand the corporate involvement
-- expand the vertical market support
-- grow the Connection

Other items covered during the day-long session were:
-- How Computer User Groups can become tax-exempt; Procedures and impact.
-- Newsletter Face-Lifts; Tips and techniques on improving the appearance and design of yours group's newsletter.
-- APDA; How User Group leaders and members can benefit from the Apple Programmers and Developers Association.
-- Volunteers: How to get them and how to keep them; inspiring volunteer support, the lifeblood of user group activity.
-- Corporate grants; A look at new developments in Apple's Corporate Grants Program and how user groups fit in.
-- AppleLink; A technical look "behind the screen" at AppleLink.
-- Customer relations; Insights in Apple's direct end-user support.

To summarize the whole AppleWorld '87, I believe that Apple is truly anxious to make the User Group Connection Program one of the major programs at Apple and plan to devote a lot of additional resources that will be necessary for it to succeed. I look forward to the seeing more and more growth and development in the coming year that will benefit all NOVAPPLE members.

--NoVA8

THE PRODOS FIX CONTINUES PART2!!!

By Chuck Edmiston

The following program is the "New Latest and Greatest" fix for you to patch-up your new version of ProDOS V8 and your old version of ProDOS V1.1.1. Like everything in this software market, problems exist in the software that the designers missed in their QA check. Thank goodness for the people who are kind enough to take the time and create these "little gems" to keep the rest of us going.

At last check, Apple's ProDOS V8.1.3 contained an "BRA" machine language instruction that is not in the original 6502 instruction set. The older Apple][+'s, and the unenhanced Apple //E's could not move files from drive 1 to drive 2 without destroying them.

Now with the 8.1.4 version now being beta-tested, (that means copies sent the software developers in the field), again a new problem exists for the older versions of the Apple II series.

Again, I like to thank Stephen Thomas and G. Bredon for the original patch program, and the members of the WAP and NOVA groups for their continue support and help in keeping the rest of us in touch with the new ProDOS problems and its fixs.

```
NEW
10REM--------------------------------
11REMStop ProDOS track 0 trashing
12REMpatches by Stephen Thomas
13REM  MacLagan Wright & Associates
14REM  West Heidelberg, VIC Australia
15REM
16REMModified by G. Bredon to patch
17REMPRODOS 1.2, 1.3, 1.4 as well as
18REMPRODOS 1.1.1.  On 1.3 another bug
19REMwhich makes 1.3 incompatible with
20REMolder machines still using a 6502
21REMprocessor is also fixed.  On 1.4
22REMa new bug is also fixed.
23REMNewly discovered MLIACTV bug
24REMalso fixed.
25REM--------------------------------
26REM
100TEXT:?:HOME
110VTAB12:?"Now patching ProDOS."
1200NERRGOTO600
130IFPEEK(116)<128THENE=1:GOTO600:REMIs mem free?
140?CHR$(4)"unlock prodos"
150?CHR$(4)"bload prodos,tsys,a$2000"
160ADR=2*4096+10*256
170IFPEEK(ADR+143)=14ANDPEEK(ADR+144)=155ANDPEEK
   (ADR+145)=191THENPOKEADR+143,78:FX=1
180IFNOTFXTHENADR=ADR+256:IFADR<4*4096THEN170
190ADR=4*4096
200P=0:FORI=4TO8:IFPEEK(ADR+I)<>234THENP=1
210NEXTI
220IFPEEK(ADR+4)=189ANDPEEK(ADR+5)=156ANDPEEK
   (ADR+6)=192THENPOKEADR+5,142:GOTO500
230IFADR>6*4096THENE=3:GOTO600
240IFPTHENADR=ADR+256:GOTO200
250POKEADR+4,189:POKEADR+5,142:POKEADR+6,192:
   REMLDA $C08E,X
260ADR=PEEK(ADR+2)+256*PEEK(ADR+3)-13*4096+ADR+5:
   IFADR>6*4096ORADR<4*4096THENE=3:GOTO600
270FORI=0TO9STEP3
280IFPEEK(ADR+I)<>157THENE=3:GOTO320
290POKEADR+I,189:REM4 STAs changed to LDAs
300NEXTI
310GOTO500
320FORI=0TO12
330READBYTE:IFPEEK(ADR+I)<>BYTETHEN600
340NEXTI
350FORI=0TO12
360READBYTE:POKEADR+I,BYTE
370NEXTI
380ADR=4*4096+12*256+12*16+13
390FORI=0TO3:READBYTE:IFPEEK(ADR+I)<>BYTETHEN600
400NEXTI
410POKEADRS,15*16
500?CHR$(4)"bsave prodos,a$2000,tsys"
510?:?"Patches completed."
520END
600IFFXTHEN500
610?CHR$(7)"Error! No patches were made."
620ONEGOTO640,650,660
630?"PRODOS file not found.":END
640?"Insufficient memory to load PRODOS.":END
650?"Patch location not found."
660?"PRODOS file may have been patched"
670?"already, or is not a compatible version."
680END
700DATA160,8,189,128,192,232,232,136,208,248,234,234,96
710DATA189,128,192,189,130,192,189,132,192,189,134,192
720DATA96,128,6,190,0
SAVE PATCH.PRODOS
```

--NoVA

MACINTOSH SE: PRIORITY NUMBER FOR INTERNAL HARD DISK

The SCSI priority number is 0 for the optional internal 20MB SCSI hard disk available in the Macintosh SE. The CPU uses priority number 7, so additional SCSI devices connected to the Macintosh SE may use priority numbers 1 through 6. You must be able to set numbers 1 through 6 on any more SCSI devices you connect to a Macintosh SE with the optional 20MB SCSI internal hard disk. The internal hard disk's priority number, set in firmware, can't be changed.

--NoVA

<From Page 1>

Block 2 is the first block of the Volume Directory, corresponding to the Catalog under Dos 3.3. Its size is variable, depending on the device type, number of files on disk, and ProDos version. For our purposes, you can think of it as being five blocks long. Block 2 is called the KEY BLOCK of the Volume Directory, and it contains descriptions of all of the files in the Directory, as well as pointers to those files. It is followed by non-key directory blocks, which are similarly organized but lack the key block's header and identification. Let's look at the organization.

The first two bytes of the Volume Directory Key Block are both zero. This identifies it as a key block. This is because the first four bytes of all blocks are used as pointers to the previous, and the subsequent blocks, respectively. The Key Block, alone, has no previous block, therefore its pointer is zeroed. OK, first two bytes - pointer to previous block. The next pair of bytes - pointer to next block. Clear? It follows that the last block is identified by having its NEXT BLOCK pointer set to zero.

The next thing in the block depends on whether it's a key block or not. If it is, there will be a header, followed by directory entries. If not, the header is skipped, and it goes directly into directory entries. Before we look at header structure, remember that we count bytes in the entry the same way we count tracks and sectors - we start counting with zero, not one. We've accounted for bytes 0 through 3.

A volume directory header has 13 fields of various sizes. Other types of files will have similar headers. The first byte, which is byte 4 of the block, contains the STORAGE TYPE, and the NAME LENGTH, contained in its high and low nibbles, respectively. STORAGE TYPE is an identifier for what sort of file this is. When we look at the structure of other files such as system files, text files and program files, you'll see that they are organized similarly. So it is this nibble that tells ProDos that this is a volume directory file, because its value is set to $F, or 1111. The other storage types have to do with ProDos's "pathname" system, otherwise called a "Tree" structure. The other storage types are "Subdirectory", "Tree", "Sapling", and "Seedling", and their values are $0D, $03, $02 and $01, respectively. Don't worry about it.

NAME LENGTH is just what it sounds like - the number of characters in the volume name. Its value will be between $0 and $F, since the maximum length of a ProDos Volume name is 15 characters.

The next field is the VOLUME NAME itself. It is 15 bytes long (bytes 1 through 15). It is the ASCII values corresponding to the volume name & does not contain the initial slash character. If the name is shorter than 15 characters, the remaining bytes contain meaningless values or zero. The next eight bytes (16 through 23) are another of Apple's famous "reserved for future use" fields, and contain nothing meaningful to you yet.

The next 4 bytes (24 through 27) are the CREATION field, and contain the date and time that the volume was initialized. Since this will be meaningless to most users, I won't go into how it's organized now.

Byte 28 is the VERSION field, and identifies the version number of ProDos that this volume was initialized under. For version 1.0, this value will be 0. Following this field is the MIN.VERSION field, also one byte in length. It identifies the minimum version number of ProDos that will be able to access the information on this volume. It is also zero, usually. You can see that Apple has left a lot of flexibility here, and has apparently contemplated using a different scheme in future versions of ProDos, which may not be compatible with the existing ones. The Min.Version field will be used to prevent an older version from trying to access one of these incompatible future versions.

Byte 29 is the ACCESS field. It describes the ways in which ProDos may use this file - whether it can be read from, written to, renamed, and reformatted. Each bit is a flag, which if set to 1, allows or enables the corresponding function, and if reset to 0, disallows or disenables it. The functions are:

BIT	FUNCTION
0	Read Enable Bit. If 1, can read file.
1	Write Enable Bit. If 1, can write to file.
2	Reserved for ProDos system use only.
3	Reserved for ProDos system use only.
4	Reserved for ProDos system use only.
5	Backup needed Bit. If 1, file was changed.
6	Rename Enable Bit. If 1, can rename file.
7	Destroy Enable Bit. If 1, can delete file.

The only one of these whose purpose isn't obvious is the Backup Needed bit. ProDos sets this bit to 1 whenever the file is created, renamed, had its file info or attributes changed, or more commonly, closed after being written to. In theory, a backup program could go through a volume, looking for files with this bit set, and backup only those files, skipping the ones that hadn't been changed.

<GOTO PAGE 13>

 <From Page 12>

Byte 31 is the ENTRY LENGTH field, and it describes how many bytes each file entry contains. For version 1.0, it is set to $27, or decimal 39. This volume directory header I'm describing is itself, 39 bytes long.

Byte 32 is the ENTRIES PER BLOCK field, which tells how many file description entries are in each block of the directory file. In our case, it is 13 EPB, or $0D.

Bytes 33 and 34 hold the FILE COUNT field, which is how many active file entries the directory contains. Active files are any files other than storage type $00. (More on that later).

Bytes 35 and 36 are the BIT MAP POINTER field, and contain the address of the first block of the volume's bit map. The bit map occupies a number of consecutive blocks, usually starting right after the volume directory. The bit map requires one block of the disk for every 4096 blocks contained in the volume. Each bit of the bit map corresponds to one block on the volume. A value of 1 means that that block is free. A value of 0 means that block is in use.

Finally, bytes 37 and 38 are the TOTAL BLOCKS field, and contain the total number of blocks in the volume.

Now after this Volume Directory Header come a series of FILE ENTRIES, as many as are necessary for the number of files on the volume. A lot of the information in a file entry is similary to that contained in the header. Byte 0 contains the STORAGE TYPE and NAME LENGTH. Bytes 1 through 15 contain the FILE NAME. Bytes 24 through 27 contain the file CREATION date and time. Byte 28 contains the VERSION, 29 contains the MIN.VERSION, & 30 contains the ACCESS field.

The rest, bytes 16-23 and 31-38, are used differently. Byte 16 is the FILE TYPE field. This is a one byte number that describes what kind of file it is. Here is a list of permissible values and their meanings:

VALUE	FILE TYPE
0	Typeless file (for special, undefined purposes)
1	Bad Block File (used to contain all the bad sectors in one place)
2	Pascal Code file
3	Pascal Text file
4	ASCII Text file
5	Pascal Data File
6	Binary file
7	Font file
8	Graphics Screen File
9	Business Basic (Apple III) file
A	Business Basic Data file
B	Word Processor file
C	Apple III system file
D	Apple III reserved filetype
E	Apple III reserved filetype
F	Directory File
10	RPS Data file
11	RPS index file
12-BF	Apple III reserved filetypes
C0-EF	ProDos reserved filetypes
F0	ProDos Added Command file
F1-F8	ProDos User-Defined file types 1 thru 8
F9	ProDos reserved file type
FA	Integer Basic program file (!)
FB	Integer Basic variable file
FC	Applesoft program file
FD	Applesoft variables file
FE	Relocatable code file (EDASM object code file)
FF	ProDos system file

Notice that you'll never encounter a lot of these, because they are exclusively used on the Apple III, under its SOS operating system which shares a lot of similarities to ProDos. This includes every file type from $02 through $BF, except $04, $06 and $0F.

Parenthentically, you have to wonder what in hell Apple was thinking of when they set up these file types. Why have integer basic files when integer basic isn't supported, and Apple itself has completely abandoned it? Why NOT distinguish between random and sequential text files? Why not make more file types available to both operating systems, like font (shape table) files and graphics screens? Why not have a binary source-code file type? Etc, etc, etc. Anyway, it's done.

Bytes 17 and 18 are the KEY POINTER field. This is the block address of the first block (KEY block) of the file being described by this entry. The next two bytes, 19 and 20, are the BLOCKS USED field, which is the total number of blocks actually used by the file itself.

Bytes 21, 22 and 23 are the EOF field, which is a three-byte integer with its LSB first. It represents the total number of bytes that are readable from the file. In some kinds of files, this can be larger than the total number of bytes actually allocated on the disk. Neat trick, huh?

Skipping over to bytes 31 and 32, we have the AUX TYPE field, which a system program uses to store extra information about the internal format of the file. BASIC.SYSTEM stores the load address of a binary file, or the record length of a text file here.

Bytes 33 through 36 are the LAST MOD field, which is the date and time that the file was last written to. This too,

(GOTO PAGE 14)

SCHEDULE OF UPCOMING EVENTS

REGULAR GENERAL MEMBERSHIP MEETINGS

1st Saturday -- Room 110 or 120, Bisdorf Bldg, Alex Campus NoVA CC - 10:00 AM
3rd Wednesday -- Room No.1, FAIRLINGTON COMMUNITY CENTER
3300 S. Stafford Street in Arlington - 7:30 PM

Saturday	Apr. 4	10:00 AM	NVCC	Genealogy - Family Roots
Wednesday	Apr. 15	7:30 PM	FCC	More Money Management
Saturday	May 2	10:00 AM	NVCC	Memory Cards - RamWorks, GS Ram
Wednesday	May 20	7:30 PM	FCC	ART - Graphics
Saturday	June 6	10:00 AM	NVCC	Disk Architecture - Copy Protect
Wednesday	June 20	7:30 PM	FCC	Open meeting schedule
Saturday	July 4	10:00 AM	NVCC	IBM Compatibility
Wednesday	July 15	7:30 PM	FCC	Communications

VOLUMES ‹From Page 13›

could be used by a backup program that copies all files modified since a certain date.

Finally, bytes 37 and 38 are the HEADER POINTER field, which is the block address of the key block of the directory which "owns" or contains this particular file. It is stored in the usual LSB/MSB format.

Now you know about the file entries, and about the Volume header. There is another type of header that is used whenever you create a subdirectory. A subdirectory header looks like a volume directory header (except that the STORAGE TYPE field will be $0D instead of $0F) up through byte 34, the LSB of the FILE COUNT field.

Bytes 35 and 36 don't contain a bit map pointer, as the volume header does. Instead they contain a pointer, the PARENT POINTER field, to the block address of the directory file block that holds the entry for this particular subdirectory.

Byte 37 is the PARENT ENTRY NUMBER field, which is the entry number for this particular subdirectory, within the directory block indicated by the PARENT POINTER field. Byte 38 is the PARENT ENTRY LENGTH field, which is how many bytes long that entry is. With these last 3 fields, you can calculate the exact position of this subdirectory's file entry, on a volume.

Before doing anything else, we'd better clear up the relationship between logical blocks and disk sectors. To find the block number from the track and sector, use the following formula:

BLOCK = (8 * Tracknumber) + Sector Offset

The sector offset is derived from this table:

DISK SECTOR:	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
Sector Offset:	0	7	6	6	5	5	4	4	3	3	2	2	1	1	0	7
which half:	f	f	s	f	s	f	s	f	s	f	s	f	s	f	s	s

Remember that blocks take up two sectors, so the standard 5" floppy holds 280 blocks. The WHICH HALF indicator in the table shows which half of the block, the first or second half, will be located at that sector. From this table and formula, you can go from blocks to tracks/sectors and back again.

This information should enable you to do some elementary disk patching and repairs. We haven't talked about the files themselves because your problems with internal file bytes are amenable to a sector zap program, most all of which will work on a ProDos disk too. Besides, the file structures have to be seen to be believed! They are, uh.....complex.

--NoVA☺

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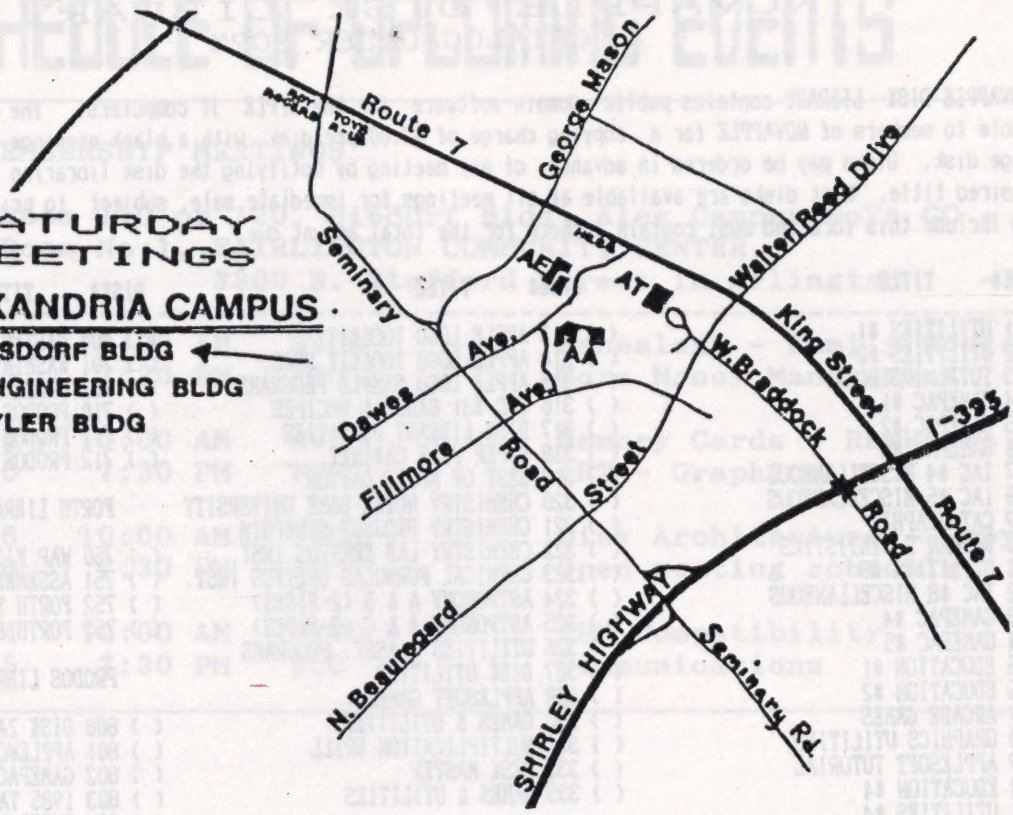

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